

REMARKS/ARGUMENTS

Claims 1 and 6-9 have been amended in this application. In claim 5, a feature of the structure of the impedance matching circuit of the present invention is recited. This feature is important to the present invention and is not disclosed in Barnes et al and Loewenhardt et al. Therefore claim 1 is combined with claim 5 to show the complete features of the present invention and the difference between the present invention and the references in which Barnes et al is combined with Loewenhardt et al. Claims 6-9 are also amended to be dependent on claim 1, not claim 5. In this response, claim 5 has been canceled.

Applicants respectfully requests reconsideration in light of the following remarks.

CLAIM REJECTIONS- 35 U.S.C. SECTION 102

Claims 10-14 stand rejected under 35 U.S.C. 102(b) as being anticipated over Collins (USPN 5,187,454; the Collins et al).

The Examiner is of the opinion that the features and the elements of claims 10-14 have been disclosed by Collins et al, and it would have been obvious to one having ordinary skill in the art at time the invention was made to construct Collins et al to match claims 10-14.

Although the Examiner is of the opinion that the electronically tuned matching network of Collins et al comprises some elements which are similar to the elements of the present invention, for example a plurality of adjustable inductors, a plurality of adjustable capacitor, a power measuring device, a power comparator and an automatic impedance regulator, this is not true. In fact, the structure of the circuit of Collins et al is the same as the structure of the circuit of the present invention but the connections between elements of the present invention is different from

that of Collins et al. Comparing the structure of the present invention with the structure of Collins et al, the difference between the present invention and Collins et al is as follows

(a) The object of the present invention is to provide an impedance-matching circuit which is connected with the alternating current bias power supply, the inner electrode and the outer electrode to balance the inner electrode power output and the outer electrode power output of the bi-polar electrostatic shuck. But the object of Collins et al is to provide an impedance matching network for matching a source impedance with a load impedance. Therefore, the structure of impedance-matching circuit of the present invention is different from the structure of the impedance matching network of Collins et al because of the different objects of the present invention and Collins et al, even if they superficially have similar elements. For example, according to the object and Figure 3C of the present invention, the impedance-matching circuit needs to connect to the power source, the inner electrode and the outer electrode, but in Collins et al, the impedance matching network just connect to the power source and the load. So the structure of circuit of the present invention is different from that of Collins et al, and Collins et al cannot attain the effect for balancing the inner electrode power output and the outer electrode power output. Therefore, the feature of claim 10 but is not disclosed by Collins et al and the rejection of claim 10 is traversed.

(b) Although Collins et al recites that the matching network contains a number of interconnected inductors and capacitors, in the specification and figures of Collins et al, the inductors, capacitors and the connection between inductors, capacitors and other elements are not shown and described. As we know, inductors and capacitors are common used in different structures of different circuits, but does this mean that the structures of the circuits containing inductors and capacitors are the same? Indeed, the circuits can have various structures and attain different effects by the difference in connections between inductors, capacitors and other elements of the circuits. In Figure 3C, the specification and claim 5 of the present invention, the connection between

inductors, capacitors and other elements of the circuits have been recited and described, and it is one of the important features of the present invention, but is not shown in Collins et al. Therefore, the feature of claim 10 is not disclosed by Collins et al and the rejection of claim 10 is traversed. Claims 11-14 can also be traversed because of their dependency.

(c) Besides, the Examiner is of the opinion that the feature of claim 11, “the power-measuring device has voltage-meter and current-meter“, is disclosed in Collins et al (column 13 row 60-64). But after reviewing Collins et al, what is disclosed in column 13 rows 60-64 is how to correct and update the model by measuring the actual voltage and current. Thus the feature of claim 11 is not disclosed by Collins et al and rejection of claim 11 can be traversed.

According to the above interpretation, the rejection of the above claims (10-14) can be traversed, and the other claims also can be traversed because their dependency.

Conclusion

In light of the above amendments and remarks, Applicant respectfully submits that all pending claims 1 and 6-9 as currently amended are in condition for allowance. Accordingly, reconsideration is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including

extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: January 4, 2006
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